

12/3,K,AB/2 (Item 2 from file: 155)
DIALOG(R) File 155:MEDLINE(R)
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05289096 86290372 PMID: 3738904

Citrullinemia: quantitative deficiency of argininosuccinate synthetase in the liver.

Oyanagi K; Itakura Y; Tsuchiyama A; Nakao T; Nakano K; Saeki T
Tohoku journal of experimental medicine (JAPAN) Apr 1986, 148

(4) p385-91, ISSN 0040-8727 Journal Code: 0417355

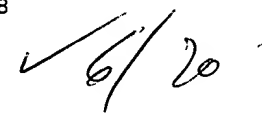
Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

Two cases of citrullinemia were reported. Case 1 was an one month old female. Her clinical course and findings were different from the fulminant type of neonatal citrullinemia reported in predominantly Caucasian countries. Our patient was well controlled under a low protein diet and essential amino acids till 9 months of age, but unfortunately she died of Reye's like syndrome. Case 2 was 31 year old male (at the time of death). He was admitted to our hospital because of hyperammonemia and mental retardation. By subsequent laboratory investigations he was diagnosed as having adult type of citrullinemia and died of **hepatoma**. Enzymological analysis revealed that **argininosuccinate** synthetase (ASS) activities in the liver tissues of the patients decreased to 40% (Case 1), 20% (Case 2) compared with those in control liver tissues. The other urea cycle enzyme activities were all within normal range. ASS activities in the kidney and brains of the two cases were within normal range. The kinetic constant values of ASS for three substrates in the tissues of liver and kidney were all normal. Results of immunochemical analyses indicated that citrullinemia in our patients was caused by a quantitative deficiency of ASS associated proteins of the liver and kidney tissues as to the molecular weight.



ds

```
Set      Items  Description
S1      2706475  CANCER OR CARCINOMA OR TUMOR OR MELANOMA OR HEPATOMA OR MA-
                LIGNAN?
S2        64    (REDUC? OR LACK? OR DEFICIENT) (5N) (ARGININOSUCCINATE)
S3         6    S1 AND S2
S4         5    RD (unique items)
S5      4986    (LACK? OR REDUC? OR DEFICIENT) (5N) ARGININE
S6        306    S1 AND S5
S7        267    S6 AND PY<=2001
S8        174    RD (unique items)
S9        166    S8 AND PY<2001
? s (cancer or tumor or carcinoma or melanoma or hepatoma) (5n) argininosuccinate
    1203188  CANCER
    1307639  TUMOR
    738210   CARCINOMA
    132182   MELANOMA
    40858    HEPATOMA
    2189     ARGININOSUCCINATE
S10      48     (CANCER OR TUMOR OR CARCINOMA OR MELANOMA OR HEPATOMA)
                (5N) ARGININOSUCCINATE
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? rd

>>>Duplicate detection is not supported for File 340.

>>>Records from unsupported files will be retained in the RD set.

...completed examining records

S11 47 RD (unique items)

? s s11 and py<=2001

Processing

47 S11

40178892 PY<=2001

S12 46 S11 AND PY<=2001

? t s12/3,k,ab/1-46

12/3,K,AB/1 (Item 1 from file: 155)

DIALOG(R) File 155:MEDLINE(R)

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06840618 91080593 PMID: 2259230

Elevated argininosuccinate synthetase activity in adult T leukemia cell lines.

Sugimura K; Kimura T; Arakawa H; Ohno T; Wada Y; Kimura Y; Saheki T; Azuma I

Institute of Immunological Science, Hokkaido University, Sapporo, Japan.

Leukemia research (ENGLAND) 1990, 14 (10) p931-4, ISSN

0145-2126 Journal Code: 7706787

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

Argininosuccinate synthetase (ASS) is a ATP-dependent and rate-limiting enzyme of the urea cycle which catalyzes L-citrulline to L-arginine in combination with argininosuccinate lyase (ASL). We demonstrate here that (a) human normal T and B lymphocytes did not express ASS activity, (b) however, three adult T leukemia (ATL) cell lines tested here exhibited significant elevation of ASS activity, and (c) ASL activity remained relatively constant in normal lymphocytes and various leukemia cell lines. These results suggest that the ASS expression of peripheral blood lymphocytes is of value as a diagnostic marker of leukemia including ATL. The implication of these results is discussed.

1990,

Chemical Name: Tumor Markers, Biological; Urea; Arginine;

Argininosuccinate Lyase; Argininosuccinate Synthase

12/3,K,AB/2 (Item 2 from file: 155)

DIALOG(R) File 155:MEDLINE(R)

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05289096 86290372 PMID: 3738904

Citrullinemia: quantitative deficiency of argininosuccinate synthetase in the liver.

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(4) p385-91, ISSN 0040-8727 Journal Code: 0417355

Document type: Journal Article

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Apr 1986,

... subsequent laboratory investigations he was diagnosed as having adult type of citrullinemia and died of **hepatoma**. Enzymological analysis revealed that **argininosuccinate** synthetase (ASS) activities in the liver tissues of the patients decreased to 40% (Case 1...

12/3,K,AB/3 (Item 3 from file: 155)

DIALOG(R) File 155:MEDLINE(R)

? s cancer or carcinoma or tumor or melanoma or hepatoma or malignan?
Processing

1203188 CANCER
738210 CARCINOMA
1307639 TUMOR
132182 MELANOMA
40858 HEPATOMA
493621 MALIGNAN?
S1 2706475 CANCER OR CARCINOMA OR TUMOR OR MELANOMA OR HEPATOMA OR
MALIGNAN?

? s (reduc? or lack? or deficient) (5n) (argininosuccinate)

3293688 REDUC?
548491 LACK?
232061 DEFICIENT
2189 ARGININOSUCCINATE

S2 64 (REDUC? OR LACK? OR DEFICIENT) (5N) (ARGININOSUCCINATE)

? s s1 and s2

2706475 S1
64 S2

S3 6 S1 AND S2

? rd

>>>Duplicate detection is not supported for File 340.

>>>Records from unsupported files will be retained in the RD set.
...completed examining records

S4 5 RD (unique items)
? t s4/3,k,ab/1-5

4/3,K,AB/1 (Item 1 from file: 155)
DIALOG(R)File 155:MEDLINE(R)
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07626920 93082106 PMID: 1450673

5/3,K,AB/2 (Item 2 from file: 155)
DIALOG(R)File 155:MEDLINE(R)
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09326325 21083439 PMID: 11215740

Hepatocellular carcinoma associated with adult-type
citrullinemia.

Ito T; Shiraki K; Sekoguchi K; Yamanaka T; Sugimoto K; Takase K; Tameda Y
; Nakano T

First Department of Internal Medicine, Mie University School of Medicine,
Tsu, Japan.

Digestive diseases and sciences (United States) Nov 2000, 45

(11) p2203-6, ISSN 0163-2116 Journal Code: 7902782

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

Hepatocellular carcinoma associated with adult-type
citrullinemia.

Nov 2000,

Descriptors: Carcinoma, Hepatocellular--pathology--PA

6/7d

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? s citrullinemia
  S1      584  CITRULLINEMIA
? s cancer or tumor or carcinoma or melanoma or hepatoma
  1203188  CANCER
  1307639  TUMOR
  738210   CARCINOMA
  132182   MELANOMA
  40858    HEPATOMA
  S2 2510740  CANCER OR TUMOR OR CARCINOMA OR MELANOMA OR HEPATOMA
? s s1 and s2
      584  S1
  2510740  S2
  S3      16  S1 AND S2

```

? rd

>>>Duplicate detection is not supported for File 340. .

>>>Records from unsupported files will be retained in the RD set.

...completed examining records

S4 12 RD (unique items)

? s s4 and py<=2001

Processing

Processing

12 S4

40178892 PY<=2001

S5 10 S4 AND PY<=2001

? t s5/3,k,ab/1-10

5/3,K,AB/1 (Item 1 from file: 155)

DIALOG(R)File 155:MEDLINE(R)

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09796859 21604463 PMID: 11